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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,766	11/03/2003	Albert Sun	MXIC 1522-1	4242

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EXAMINER	
PEERS, CHASE W	

ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 01/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/699,766	SUN ET AL.	
	Examiner	Art Unit	
	Chase Peers	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

The submission is in compliance with the provisions of 37 CFR 1.97.

Accordingly, the examiner has considered the information disclosure statement.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2-5, 7, 9, 10, and 13 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2-5, 7, 9, 10, and 12 of copending Application No. 10699764. Although the conflicting claims are not identical, they are not patentably distinct from each other because the applicant is claiming the same invention, but changing the

name of the functions being run without changing the overall function taken from the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 14, and 15 rejected under 35 U.S.C. 102(e) as being anticipated by Allegrucci (Pat No 6792527).

1. Regarding claim 1, Allegrucci discloses a configuration logic array defined by configuration data stored in configuration points in the configuration logic (column 2, lines 5-23), a memory adapted to store instructions for a mission function for the integrated circuit, to store instructions for a configuration function used to transfer the configuration data from then configuration memory to the programmable configuration points within the configurable logic array, a programmable configuration memory adapted to store the configuration data (column 3, lines 28-41 and column 1 line 66 to column 2 line 4), a processor

coupled to memory which executes instructions from memory (column 2, lines 55-64).

The examiner notes that the CSL cells in the prior art of Allegrucci are configuration points, but are not listed as such. Furthermore, although Elmer et al. does not expressly disclose the use of a programmable memory adapted to store configuration data, it does disclose the exact same functionality with a second memory area.

Finally, the examiner notes that other prior mentioned in this Non-Final Reject can also be used as grounds for rejection against independent claims 1 and 20. This prior art includes, two patents by Sun et al. (5901330 and 6401221).

2. Regarding claims 14 and 15, Allegrucci describes all the limitations found in claim 1 and further describes an interface between the processor and the configuration and an interface between the configuration memory and the configurable logic array (column 2, lines 24-28).

The examiner notes that interfaces assume that they allow the transfer of the data when it is noted that the two objects interact with each other and share data.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

> be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Allegrucci as applied to claim 1 above, and further in view of Robb et al. (Pat No 5276839).

Allegrucci describes all the claim limitations of claim 1, but does not describe the memory being a first volatile store for the configuration function and a second store for the mission function.

Robb et al. discloses the memory being RAM (figure 1, item 260) and a second store for the mission function (column 3, lines 43-49).

Allegrucci and Robb et al. are analogous art because they both regard programmable memory for a system on a chip. At the time of the invention it would have been obvious to a person of ordinary skill in the art to store the mission function in memory and to have memory be volatile. The suggestion for doing so would have been for easy access to the function by the processor, low cost, and easily changable. Therefore, it would have been obvious to combine Robb et al. and Allegrucci for the benefit of time and cost savings and easy access to obtain the invention as specified in claim 6.

The examiner notes that although it does not expressly state that the mission functions are stored on the memory, it must be noted that for the processor to do its mission for the host system, it must load the mission functions and mission data, which would come from the memory.

Claims 8 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Allegrucci as applied to claim 1 above, and further in view of Agrawal (Pat No 6102963).

4. Regarding claim 8, Allegrucci describes all the limitations in claim 1, but does not describe the configuration function including loading the programmable configuration memory via an input port on the integrated circuit.

Agrawal describes the configuration function including loading the programmable configuration memory via an input port on the integrated circuit (column 4, lines 3-14).

Allegrucci and Agrawal are analogous art because they both regard programmable memory for a system on a chip. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have the configuration function be loaded via an input port. The suggestion for doing so would have been to protect the configuration function by keeping a master copy at another location. Therefore, it would have been obvious to combine Agrawal and Allegrucci for the benefit of data protection to obtain the invention as specified in claim 8.

5. Regarding claim 12, Allegrucci describes all the limitations in claim 1, but does not describe the programmable configuration memory comprising a volatile store.

Agrawal does describe the programmable configuration memory comprising a volatile store (column 3, lines 50-56, and column 6, lines 33-37).

Allegrucci and Agrawal are analogous art because they both regard programmable memory for a system on a chip. At the time of the invention it would have been obvious to a person of ordinary skill in the art to have the memory be a volatile memory. The suggestion for doing so would have been to easily change or erase the data on the memory. Therefore, it would have been obvious to combine Agrawal and Allegrucci for the benefit of ease of use to obtain the invention as specified in claim 12.

6. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Allegrucci as applied to claim 1 above, and further in view of Tsai (Pat No 6009496).

Allegrucci describes all the limitations in claim 1, but does not describe a programmable configuration memory comprising a non-volatile store.

Tsai describes a programmable configuration memory comprising a non-volatile store (column 1, 20-30).

Allegrucci and Tsai are analogous art because they are similar art, systems on a chip. At the time of the invention it would have been obvious to a person of ordinary skill in the art to make the programmable configuration memory a non-volatile store. The suggestion for doing so would have been to allow data to be stored even with loss of power. Therefore, it would have been

obvious to combine Tsai and Allegurcci for the benefit of storage to obtain the invention as specified in claim 11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chase Peers whose telephone number is (571) 272-6757. The examiner can normally be reached on from Monday to Friday, 8AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PIERRE BATAILLE
PRIMARY EXAMINER
1/4/06